

Descriptions of Good Locations to Listen to Natural Radio: North America, the British Isles and Sweden

A Travelogue with some scenic photographs...

The following listings show North American locations (by state, province, and country) and a few places in England and Ireland where audio-frequency "Natural Radio" emissions (0.2 - 10 kHz) may be listened to with only very faint-to-nil power-line hum present. Most of the listed sites below have been discovered (and many re-visited) by Stephen P. McGreevy during Natural Radio recording expeditions between 1991 and the present. Additional information besides my own has been contributed by fellow Natural Radio enthusiasts (hopefully considerably more in the near future will be added). As I solicit more information from them, it will be added to this list along with proper and due credits to them for contributing this valuable and vital information.

These sites have been found to be distant enough from AC power-lines (on average, 5 to 10 miles) to render the PLHR (power-line harmonic radiation) emission from electric lines (in the form of 60 Hz "hum" and harmonics tones and buzzes) weak to nil on sensitive E-field VLF receivers employing short, 1 - 3 meter tall vertical antennae. Thus, these low hum or hum-free locations are excellent spots to record Earth's splendid Natural Radio sounds in the audio-frequency VLF band of 0.3 - 10 kHz. As an added benefit, these sites will also be wonderfully quiet for LF, MF, and HF frequencies.

The majority of these VLF-quiet locations are accessible by regular passenger car in good weather and dry road conditions. Some of these locations might require a higher clearance 2-wheel (like my blue van) or a 4-wheel drive vehicle to access them in poorer weather and wet-road conditions. A few of these are strictly hike/walk-in (or possibly, accessible via mountain/all-terrain bicycle), and...only via boat such as a canoe on remote northern lakes of Canada!

The following listings are self-explanatory, and have detailed information such as road access routes, associated geo-graphic coordinates, and other relevant notes and anecdotal information.

It is intended that these listings become the most comprehensive VLF-quiet listings available anywhere. Your contributions to this list are very much desired and welcome, no matter what type of VLF receiver you use - not just ones I manufacture. This information strives to be of value to everyone with an interest in natural VLF radio - whether

individual amateur enthusiasts, students, or ground-based VLF research organizations. Information about every conceivable quiet listening sites are desired - whether from big-city parks or the deep wilderness. Please send your information via postal mail to:

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Note: I have somewhat neglected this listing for many months since starting compilation of it in early 1997, but now as of September 1997 I plan to rapidly expand this list as information has come in by other listeners and also from my further explorations over this past summer. All photos by S. McGreevy

Now on to the listings:

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Skilak Lake area: Approx. Geo-graphic coordinates: 60 deg. 40 min. north/150 deg. west. The entire shoreline and adjacent camping sites (Lower and Upper Skilak Lake drive-in campgrounds, Ohmer Lake, etc.) are completely power-line free. Large power-lines run along the Sterling Highway (#1) between Sterling/Soldotna and its junction with Highway 9 (Seward Highway), and emit strong PLHR "hum." However, As you travel away from the Sterling Highway on the unpaved but wide and excellent packed dirt and gravel road. Skilak Lake Road increasingly gains you distance from the large powerlines along the Sterling Highway. Absolute hum-free receiving conditions are achievable near the Skilak Lake overlook and Bear Mountain Trail areas, as well as at the Lake itself. The

southern shore of Skilak Lake is only accessible via boat. Due to swampy and marshy topography along the lake shore, hiking for any distance along the lake's shore becomes arduous and nearly impossible. (S. P. McGreevy, 09 - 12 September 1995)

[VIEW PHOTO](#)

Skilak Lake with the Kenai Mountains in the distance

Central Interior:

Steese Highway and Chatanika River regions (northeast of Fairbanks): Beginning approximately 40 miles north/north-east of Fairbanks and about 20 miles north-east of the junction of Highway 2 (Elliot Highway) in central Alaska's Interior, the Steese Highway (#6) turns into a well-maintained gravel highway about 50 highway miles from Fairbanks - roughly at Mile Post 44. The entire road is free from ANY powerlines all along the Chatanika River northeastward and all the way to near Central. In the warmer months from July - September, this region can be considered one of the very best VLF-quiet listening area in the entire United States and also a fabulous location to view displays of the aurora borealis in September when the skies are dark but the weather is still mild. (S. P. McGreevy, 06 Sept. 1995)

Alberta

[VIEW PHOTO](#)

Abraham Lake, golden Aspen Trees and the gorgeous Canadian Rockies. Photo by S. McGreevy

Abraham Lake and Highway 11 west of Nordegg and Rocky Mountain House, Alberta: Incredible views of the Rocky Mountains and avalanche-scored slopes as Highway 11 winds its way along the northern shore of Abraham Lake. In mid-late September the mountains blaze with the golden-yellow colours of Aspen and Birch trees intermingled with conifers (Spruce). No powerlines along an over 30 km stretch of this road! Numerous pull-outs and potential places to camp discretely. On some dark and clear nights the aurora/Northern Lights may be seen to the north and north-east especially in September and October or in the early Spring. (S. P. McGreevy, 26-27 Sept. 1993)

Mackenzie Highway 35 - Whitemud River region due west of Dixonville, AB:

Already well within the auroral-zone and a fabulous area for VLF monitoring, I located this site while looking for a power-line free locale to stay for a few days in June 1996. This site is about 60 km/45 mi. (air distance) northwest of Peace River, AB. Follow the CAA signs pointing to Spruce Lake. The road is paved for about the first 15 km westward amongst largely birch and spruce forests and misc. ranch and farm homesteads. Road

turns to well maintained wide-dirt and heads westward into hilly country toward the Whitemud River. There are a few gas-wells in this region. About 30 km west of Dixonville I found a road running uphill to the south with an unlocked chain gate and sign "Whitemud PGA" and headed uphill for 1 km into a cleared meadow/cattle grazing land away from nearby birch/aspen trees - very quiet and secluded with Canada Geese in some nearby ponds. In early June, there was twilight all night. This site has only a faint trace of powerline hum on a very sensitive VLF receiver and would also make for an incredible auroral-viewing site in darker months. One of my best and favorite VLF recordings was made at this location on 02 June 1996! beware of terrible mosquito swarms in June here as in much of the north's boreal forest country. (S.P. McGreevy, 01-03 June 1996)

Mackenzie Highway 35- region north of High Level, AB northward to NWT border:

The entire stretch of highway north of Meander River and Indian cabins to the NWT border/60th Parallel lacks any powerlines along the road (or for that matter away from the road) and is VLF-quiet and also well-within the auroral-zone for fabulous VLF listening and aurora viewing.. I did not stay for any length of time in this area as I was on my way northward, but I did make careful checks along the route to determine if there were any electric lines in the region, and there were not nor was there any powerline hum whatsoever. Telephone microwave-relay stations along the highway are powered by propane generator and not by the mains grid.

Waterton Peace Park, Alberta - Belly River CampgroundMy father and I stopped here for four days, June 18 - 22, 1998. This a gorgeous campground and is very quiet for the most part, especially during the weekdays. Campsite number 20 is the site in this campground where I made my STEREO recordings, some of which appear on my A HREF="sndbites.htm"three audio-file websites. Even on sensitive magnetic-field (loop) receivers, the AC powerline hum is very weak - probably coming either from the Chief Mountain Canadian and U.S. customs stations 3 km to the south or from Waterton Park Townsite 10 km to the north over the mountains.

Arizona

Highway 66 north-east of Kingman, AZ: Back in October 1989 Gail and I didn't have really good VLF receivers but we did note that there weren't any powerlines along one section of the famous Route 66 about 20 miles north-east of Kingman and that there were many dirt roads leading into the low hills to the south-eastern side of the road. Needs to be further explored by VLF enthusiasts and researchers.

British Columbia

Vancouver Island - (northern) Eve's River region: Gail and I accidentally discovered this site whilst driving northward up highway 19 from Campbell River toward Port Hardy. We were caught in a heavy snow squall and had to leave the road to wait it out. Large powerlines ran along the road but veered away toward the east and away from the road at Sayward. Highway 19 takes a brief dip southwestward and into the Eve's River valley where a rest stop and picnic area was located. We parked overnight and recorded incredible nighttime and dawn chorus of loud intensity on 21 February 1994 during a major magnetic storm. Not even a trace bit of powerline hum was noted listening with my sensitive WR-4b VLF receiver. (S.P. McGreevy 22 Feb. 1994)

Southeastern BC on Trans-Canada Highway 1: Driving westward from Lake Louise/Banff Nat. Park toward Golden, we made a stop for a rest and to view the mountains and fall colours and a quick check with my WR-3 revealed no hum nor any visible powerlines near Field, B.C. (S. McGreevy 27 Sept. 1993)

California

Recommended maps: Delorme's *Northern California Atlas and Gazetteer* and *Southern California Atlas and Gazetteer*

Inyo County:

Lone Pine Area where I now live: Tuttle Creek BLM Campground, especially the farthest westward reaches of the campground and adjacent BLM Lands to the west at the base of Lone Pine Peak and Mt. Langley, and into the eastern High Sierra Mtns. including the Tuttle Creek Canyon are all fairly quiet, the hum (from 3 large sets of powerlines near the ruined Owens River, including the BPA pulsed-DC line running from Bonneville Dam in OR/WA to Los Angeles) lessening to the point of being very faint as you get toward the mountains and fading away as you get higher up into the mountains. Access to these places is via Whitney Portal Road (paved) from downtown Lone Pine to Horseshoe Meadows Road (paved)--southward a couple of miles to the entry road to the campground (dirt). A half-mile further to the right is Granite View Drive - turn westward on the washboard dirt road toward the Sierra Nevada Mountains. Before you get to the Great Space Center (private land which I have access to), the dirt road branches to the right (if you go straight you enter the great Space center property). This road leads upward amongst the alluvium and fantastic granite boulder fields into the mountains, where you can camp in your vehicle or hike into the mountains into the John Muir Wilderness. You go from high-desert sagebrush country, through Pinyon Pine woodland, and into wetter Alpine micro-climate including pocket forests the higher in elevation you hike. Wonderful views to the east of the weathered and eroded Alabama Hills granite rock formations akin to ones seen at Joshua Tree National Park and also the stark Inyo Mountains.

For the ambitious, you can drive to the end of **Whitney Portal Road** and hike all the way to Mt. Whitney or farther into the High Sierra (permit required from the Forest/Park Service/BLM Multi-Agency Center in Lone Pine) (S. McGreevy September 1997)

Northern Inyo Mountains, Eureka Valley, most of northern Death Valley All of these places within the vast Inyo County, CA lack powerlines. Most of Death Valley south of furnace Creek is free of powerlines, as is Death Valley north of Grapevine Ranger Station. The road from Big Pine - (east-bound) the Eureka Valley Road, is free of any AC lines too.

Horseshoe Meadows Road continues southward past Tuttle Creek and Granite View Road and eventually switchbacks its way up into the Sierra (paved all of the way and with cliff-hanger views of Owens Lake and the Valley below) where you can park your vehicle in a well-maintained and large parking lot and hike into endless miles of the High Sierra (including the John Muir Wilderness) which are ALL powerline-free including the parking-lot itself and nearby Horseshoe Meadows.

[VIEW PHOTO](#)

*View of the Owens Valley, Lone Pine, Alamaba Hills and the Inyo Mountains from Horseshoe Meadows Road.
Photo by S. McGreevy, 9/97*

Death Valley National Park Highway 190 (after the merge with Highway 136 from Lone Pine) eventually enters the **Panamint Valley** which totally lacks powerlines in its northern section away from Panamint Springs. The same for the **Saline Valley** to the north, accessed via increasingly rough dirt road. You'll eventually get to **Stovepipe Wells** which has small powerlines serving it from the south, but if you head north toward along the North Death Valley Road (paved - 45 MPH) toward Scotty's Castle and **Mesquite Campground**, that entire region has NO powerlines and no hum whatsoever. Do this drive in cooler weather outside of summer, but if you do go there in the summer, it is hot and there are radiator water stations every five miles or so along this highway.

[VIEW PHOTO](#)

Mesquite Campground - Northern Death Valley

I've camped for a few days in mid-March 1997 at **Mesquite Campground** and heard only extremely faint AC hum on my sensitive WR-4b VLF receiver from small lines going to Scotty's Castle (4 miles distant) coming in from Nevada, although a nearby RV in the campground may have an AC generator, though usually most RV'ers (caravaners) don't run them long or late. You either walk/hike northward or southward along the Death Valley Wash for miles (fantastic scenery but do it with plenty of water and in cooler or cloudy weather) or you can also drive dirt roads to Ubehebe Crater and over the hills via primitive dirt road into the Hidden Valley - site of the infamous Bill Hooper INSPIRE VLF expedition in March 1992. (S. McGreevy March 10-12, 1997)

If you head south from Stovepipe Wells you'll be near small powerlines all the way to busy **Furnace Creek** and not good areas for superior VLF monitoring.

northern Panamint Valley: This area is lovely! There are gorgeous sand dunes on the alluvial slope of the valley (see photo) and the oddity of Lake Hill to explore. Panamint Butte has beautiful sedimentary layers. The vicinity of Lake Hill and Panamint Butte can be reached by a bumpy dirt road that is passable even in rainy weather with a passenger car or 2WD. Overnight parking allowed within 100 ft. of the road, otherwise, no off-road driving permitted. Just a very faint trace of AC power-line hum on a sensitive e-field receiving system. Impossibly hot mid-May to mid-September during the daytime, but the rest of the year can be delightful in clear weather. This area is now within Death Valley NP.

[VIEW PHOTO](#)

northern Panamint Valley and sand dunes, November 1997 - Death Valley NP

Humboldt County:

Humboldt Lagoons State Park: I found the long sandy beach strand stretching to the north with Big Lagoon to the east was quite free from AC powerline hum on a WR-3E receiver once I walked about a mile north of the campground and boat launch areas (a residential area is also close-by). This area is about 3 to 4 miles north of beautiful **Patricks Point State Park**. There is another more northern section of the Humboldt Lagoons State Park next to Stone Lagoon and Sharp Point which I have not explored but which may also be free from AC hum.

Marin County:

Point Reyes National Seashore: Many sites: North Beach and the beach all the way to and south of South Beach including the parking lots (South Beach parking lot is quieter); Mt. Vision parking lot; Coast Trail between Limantour Beach all the way to Palomarin - *the quietest and best* (on foot only); trails around Mt. Wittenburg (on-foot only); Tomales Point and trail for 2 miles south (on foot only); Kehoe beach (on foot only); the beach west of Abbotts Lagoon (on-foot only); Drake's Beach 1 mile eastward from parking lot (on-foot only). Small powerlines run along Sir Francis Drake Road but radiate strong hum no farther than 0.5 - 1 mile away from them. (S. McGreevy 1991-1994)

[VIEW PHOTO](#)

Point Reyes at sunset viewed from Mt. Vision

Loma Alta Hill (on-foot only): most of the eastern flank of Loma Alta (seen in the photo below) is fairly quiet for small antennas but may be have a bit too much AC-hum for very sensitive installations. This Oak and grassland hill was where all of my initial VLF experimentation near my San Rafael home was done from during 1990 - 1991 and casual listening thereafter until November 1995.

[VIEW PHOTO](#)*Loma Alta hill at sunrise*[VIEW PHOTO](#)

Fingers of morning fog and Lucas Valley from west slope of Loma Alta - Marin Co. Mendocino County:

Fish Rock road between Highway 128 and Gualala Mountain: Gorgeous scenery amongst the Redwood Trees in the canyons and open ridgetops of Oak and chaparral.. The site I discovered late in the night on 01 April 1994 was about 10 winding miles from California highway 128. One of the recordings I made wound up on my CD "Electric Enigma." CD liner notes describe the following: *Spring-time in northern California is delightful. The hills are ridiculously green and full of wildflowers, and the air pervades with a potpourri of scents. Thoughts turn to the outdoors... Suffering from an intense case of "cabin-fever," I tossed a few necessities and a couple of my VLF receivers into the van and headed northward from the San Francisco area into California's "Redwood Empire." With no specific route plan, I just drove on with the single goal of getting as far from the city as possible. Driving into the night, I spied a sign pointing out a turn-off to Fish Rock Road. I thought to try it out, having never been that way before. It also looked promising as a "power-line free" road, winding as it did into the coastal mountains peppered with groves of Oak and Redwoods. Locating a nice turn-out suitable for overnight parking, I did another of my "VLF-checks," instantly rewarded with gorgeous, almost pure whistlers ringing in my ears! These ones sounded BEAUTIFUL, with a hollow, cavernous quality to them, and the lightning-stroke "tweeks" were also quite nice sounding. This early April night felt almost warm, and the sky was full of stars - this recording segment is part of several hours of tape run during the night.*

Modoc County:

Surprise Valley: Drive for about 8 or 9 miles on Modoc County Rd. 1/Surprise Valley Road (narrow paved) north from **Cedarville** and then turn eastward (right) onto County Road 15 (also called Lake City Dump Road) and head for 3 miles past the dump toward an intersection of dirt roads. You'll see a TV translator installation ahead about 1.5 miles to the east, but you need to turn northward onto a washboard gravel road heading along the eastern side of Upper Alkali Lake (dry in late summer and early autumn usually). I noted that this road was still called County Rd. 15, and as you travel farther north along it the AC hum fades away to nil. (S. McGreevy October 1993).

Fandango Pass Road leads away from Modoc County Road 1/Surprise Valley Road about 20 miles north of Cedarville and into the Warner Mountains and the Modoc National Forest. This road is unpaved but fairly good quality gravel with some washboarding. Wonderful views of the Surprise Valley and Upper Alkali Lake below during the initial switch-back ascent westward. Once up to the summit, the road mostly levels out then begins a gradual descent down the other side of the mountains, becomes

narrow and paved near the Buck Creek ranger Station, and descends into the scenic Goose Lake Valley and terminates on Highway 395.

Clear Lake reservoir area: Westside Road - west side of Goose Lake: Westside Road is unpaved but good quality and begins at Davis Creek and Hwy. 395 where you turn westward onto it next to a small white church (paved for the first few miles) and then it crosses a causeway then enters Modoc Nat. Forest lands and follows the eastern shore of Goose Lake all the way into Oregon where you can take Westside Road back to Oregon Highway 140 and toward Lakeview and Highway 395 or elsewhere. Powerlines begin just south of the CA/OR state-line serving farms and homes west of Lakeview Oregon but south of that along Goose Lake there are none and the AC hum fades away to nil a couple of miles south of the state-line into California.

Riverside County:

Joshua Tree National Park: [This is one of the most gorgeous desert-scapes I've even set my eyes on. I believe Death Valley National Park and the area surrounding Lone Pine, California (except for the ravaged and littered Owens Valley floor) are also some of the other most gorgeous desert-scapes I've been (or live in).] Nearly the ENTIRE National Park except the Cottonwood campground lacks AC powerlines. The park replete with gorgeous mountains, the unique look of the Joshua Tree yucca, beautiful granite rock outcroppings, and so on! All campgrounds within the Park except for the Cottonwood campsite (due to having AC hookups and close proximity to Interstate-10) lack AC powerlines. I've stayed nearly a week at White Tank Campground (small - 15 sites) and the hum on the most sensitive WR-4B VLF antenna system is a very faint and barely audible. You can even get farther into the wilderness where there is NO AC hum audible whatsoever, and can drink in the incredibly gorgeous desert scenery!

When I was there before Christmas 1997, a RARE snowstorm struck on the 4th day I was there, and I took this photo as it was clearing up the next day:

[VIEW PHOTO of Snow-covered desert and a Joshua Tree](#)

Photo by S.P.McGreevy, 22 December 1997

San Luis Obispo County:

Carrizo Plain/Elkhorn Plain: BLM Public Land along northern part of Soda Lake accessed from Calif. Highway 58 west of Buttonwillow and east of San Luis Obispo. Follow Elkhorn Road along the San Andreas Fault Rift Zone to a place southeast of Soda Lake between two large sets of powerlines. I discovered this site with Gail during a winter road trip to escape winter fogs and recorded some very nice whistlers and weak background chorus here.

CD liner notes say: *Bisecting California nearly in two, the San Andreas Fault scores a rugged line from the Salton Sea northward to Cape Mendocino, threatening residents*

with destruction and fury at any time, but also rewarding them with fascinating geological sights. One of the best spots to view the amazing work of this vast fault line is in central California's Carrizo Plain, where tree-barren, oat-grass covered hills reveal its slow, determined work in the form of offset streams and weird folds in the hills (clearly visible in satellite photos taken overhead). It is also a fairly nice place to travel to in the winter, shielded from cold, damp fogs shrouding the great central Valley as well as from coastal rain showers.

Driving along a smooth dirt road alongside the fault-line hills this New Year's Day, we chose a spot to camp with wonderful views of the surrounding terrain and also as far as we could get from a couple sets of large power-line pylons marching away in the distance.

A magnetic storm was in progress, though it was winding down from the day before...Camped next to electric lines, we were unable to listen the previous night and now welcomed the electrically quiet location we had found, as well as the amiable weather. At 5 a.m. the next morning, this recording segment was made. Weak chirping sounds of Dawn Chorus can be heard (had I been farther north in latitude, the Chorus would have been much louder) and also a good deal of pure whistlers are forthcoming. The weak hum sounds of high-voltage power lines about 4 miles distant can be heard.

Hawaii

Note: Hawaii has for many years had excessive Omega reception from the Haiku "C" transmitter location near Kailua on the island of Oahu, but after 30 September 1997, Omega ceases transmissions and thus will no longer pose a great annoyance to VLF listeners in the Islands.

Hawaii Volcanoes National Park: Away from the Visitor Center, Hotel, and Volcano Observatory along the Kilauea Crater Rim, and Highway 11, the remaining part of the Park lack any powerlines. The Black Sand Beach and Campground at Kamoamoa and that entire south-east coast west of there are splendid places to listen to interesting tropical-zone VLF phenomena, such as "short whistlers" as well as regular whistlers of which I heard several fairly loud in October 1991 during 5 days stay there. Chorus events are quite rare and weak in Hawaii but other subtle VLF phenomena not easily heard at higher latitudes await further examination. Much less rainy than the north-east part of the island. Excellent MW BCB DX location too! (S. McGreevy October 1991)

[VIEW PHOTO](#)

Kamoamoa Black and Beach, Hawaii Volcanoes Nat. Park

[VIEW PHOTO](#)

October 1991 photo of lava burning up a road in the Royal Gardens subdivision, Puna

District

Honokaa District - Hawaii Island - Kalopa State Park Forest Reserve: Gorgeous remnant windward rainforest remain to be explored and enjoyed along with associated bird life. The Park is on the island's rainy north-east section. You can walk a road through the length of the Park to its northern boundary, and on a clear day see nice vistas of Mauna Kea. This area just outside the Park on its northern boundary is mostly cleared of trees and is grazing land - open country fine for e-field VLF receiver use and AC hum-free. The Park lies at about 2500 feet elevation making for a cooler climate than down along the immediate coast toward sea-level. Beware of wild boar within the Park. Four cabins (with AC power) can be rented for a night and up to 14 days and there is a main building with a kitchen and large meeting place, and also outside (sheltered) picnic tables. Contact the Hawaii Division of Parks office in Hilo for reservations. Another good MW BCB DX location for reception to the east and north, but not good for Pacific/Down Under reception due to substantial signal blockage from the mountains. (S. McGreevy, October 1991).

Puna District area south of Hilo: There are many rural housing developments south of Hilo that are off-the-grid both electrically, and into the deeper parts, away from telephone lines which may couple some AC hum into areas otherwise away from AC power-lines. Hawaiian Acres sub-division south of Mountain View and Keaau is the largest rural area inhabited but devoid of AC lines.

Also, the area near Cape Kumukahi on the Big Island's easternmost point and the coast south-westward to MacKenzie State Park lack any electric lines. The Cape itself is quite barren of trees and replete with interesting lava flows - particularly the 1960 flow that demolished the village of Kapoho. Farther along this coast toward Kamoamoa Campground within the Hawaii Volcanoes Nat. Park, recent lava flows between 1989 and 1993 (and continuing today) have mostly demolished the (power-line free) sub-division of Royal Gardens and village of Kalapana, and have created interesting new scenery and black sand beaches where none existed just 10 years ago. (S. McGreevy, late 1986, Sept. 1989, October 1991)

Manitoba

Grass River Provincial Park: Geographic coordinates: 54 degrees 40 minutes North latitude / 101 degrees 10 minutes West longitude, located 2 miles north of Simonhouse Lake and 1/3 mile south of Provincial Hwy. 39 (was 391), 5.5 miles (8.8 km) east of the junction of Highway 10 and 39. Geo-magnetic latitude: approximately 64 degrees north - a prime location for VLF chorus and aurora observation. Large roadwork's quarry and gravel pit about 0.25 mile deep and a couple hundred yards wide with large, long unused sections half-overgrown with new plant growth.

[VIEW PHOTO](#)

Bright aurora photographed a bit past midnight MDT on 23 August 1996

This was the site that I "found" during a search for a powerline hum-free location in this region during my two-week long [Solar-Minimum Natural VLF Radio Recording Expedition](#). I had noticed a lack of powerlines along Provincial Highway 39, and I pulled into this site to temporarily stay for one night after a quick check with my WR-3 revealed no hum. That night (22-23 August 1996), there was a beautiful aurora display that filled the sky several times during the night, with subsequent strong and gorgeous-sounding VLF radio chorus the following morning. As such, I relocated to a better spot 100 yards from the first stop and elected to settle in for at least a week. I stayed 14 days (22 August - 05 September).

[VIEW PHOTO](#)

Northern Manitoba VLF recording site, 25 August 1996. WR-4b 3-meter tall vertical antenna mounted on van's rear door. View looking eastward. Boreal forest of Birch and Spruce trees.

Nevada

Telephone numbers for road conditions: Northern NV: (Reno): 702-793-1313; Northeastern NV (Elko) 702-738-8888; General Information: 702-888-7000:

Northwestern section of Nevada:

Black Rock Desert:

[VIEW PHOTO](#)

October 11, 1992 in the Black Rock Desert with part of King Lear Peak visible in the background.

The north-eastern section of the Black Rock Desert--particularly alongside the western flank of the Jackson Rang--is VLF-quiet, and is within an approx. 25 X 30 mile region free from any power-lines.. Small (approx. 25 kV) Powerlines run along the (northern) dirt access road (called Leonard Creek Road) that begins at Highway 140 and which is paved for its first 5 miles, then turns to dirt, passing 3 ranches until the powerlines end at the final southern-most ranch (McGill Ranch). Passing this last ranch, the road continues southward along the western flank of the Jackson Range toward the old sulfur mining town of Sulfur. This area lies partially within a BLM Wilderness study area.

My favorite listening and camping spots - also on BLM land - lie just 4 to 5 miles west and southwest of King Lear Peak (geographic coordinates: 118 deg. 38 min. west/41 deg. 11 min. north) and are about 12 to 14 miles from the nearest powerlines.

Access to this region from the south is via a road turn-off 3 miles south of Gerlach, NV (about 60 air-miles away to the southwest of King Lear Peak), off of Nevada Highway 447 and via a well maintained gravel road heading to the north-east which runs along the edge of the dry lake bed playa for many miles (and sometimes too close to some large powerlines running alongside the Union Pacific Railroad tracks though you'll find numerous roads branching southward away from these powerlines and into VLF-quiet locales). The best sites near King Lear Peak are about 60 miles from Gerlach and about 20 miles from Highway 140 to the north. (S. P. McGreevy, June and July 1989, October 1992, September 1996). See the Manitoba Solar Minimum VLF [Recording Expedition Report](#) for more details. (refer to NV DOT Nevada Map Atlas Quadrangles **2-10**, 3-10, 3-11)

[VIEW PHOTO](#)

Nevada's Black Rock Desert (northern section). View of dry lake bed playa and Jackson Mountains near sunset on Saturday, 21 September 1996

Smoke Creek Desert: Branching toward the south-west from Gerlach, NV is another dry lake bed playa called the Smoke Creek Desert. The entire northern section of this dry lake bed "desert" lacks any powerlines. Access to this region is best had from the north near Gerlach. Travel about 10 miles north of Gerlach on highway 447 and then look for a wide well maintained dirt/gravel road to the left once past a ranch (Deephole Ranch). This road heads westward away from Highway 447 and the large pulsed-DC Bonneville Power Admin. powerlines running northward along side Hwy. 447 and which you will cross over Hwy. 447 four miles northwest of Gerlach. The farther you travel westward and then south-westward, the weaker the PLHR hum noise from these huge "crackly" power-lines becomes. A particularly scenic listening spot is next to large Sagebrush stands and a large rock outcropping called "Indian Rock," about 4 miles to the west of Highway 447 and just to the north side of the dirt/gravel road. Enjoy gorgeous mountain and lake bed vistas and also sights of distant trains on the Southern Pacific tracks to the south and south-west. (S. P. McGreevy, October 1993) (refer to NV DOT Nevada Map Atlas Quadrangle 3-11, 3-12)

Charles P. Shelton National Wildlife Refuge (Humboldt and Washoe County):

Located in Nevada's far north-eastern corner, the refuge, administered by the U.S. Department of the Interior, is in the midst of the interesting plateau and tableland country of northwestern Nevada, and looks quite different in topography from most of the rest of the state. Flatter land and less basin and range topography is the rule here.

"The refuge is primarily high, semi-desert country typical of the Great Basin, characterized by large tablelands and rolling hills. These areas are interrupted by narrow valleys and canyons bordered by precipitous rocky rims. Elevations range from 4,100 to 7,200 feet. above sea level." (quoted from the USDA, Dept. of the Interior pamphlet "Wildlife") publication RF14620)

Most of this Refuge lies within a huge power-line free zone (40 miles wide east-west by 60 miles long - the center of which is at geographic coordinates: 42 deg. 35 min. north/119 deg. 30 min. west) that extends northward into Oregon's Hart Mountain Antelope Refuge and parts of the northern Warner Valley and Lakes area (see [Oregon](#)). Access to this area is best attained from numerous dirt/gravel roads via Highway 140 from Denio Junction, Nevada or from Lakeview, Oregon. Driving in from east (Denio Jct.), small powerlines generally follow the road but eventually turn away southwestward from Highway 140, as they serve the Refuge sub-headquarters at Dufurrena near the Virgin Valley Campground and also serve the (full-hookup) Royal Peacock RV (Caravan) campground. Once you drive 5 miles west of Dufurrena Grade and then the roadside rest stop at Big Spring Creek, you then enter the powerline free area which encompasses the entire western half of the Refuge.

The many camping sites inside the Refuge are all fabulous VLF-quiet locations and are usually quiet, especially on weekdays. Notable places are Big Springs Reservoir (2 miles off of Hwy. 140 and 6 miles from Oregon/Nevada state line); Catnip Reservoir approx. 20 miles west of Highway 140 on the unpaved but well-maintained NV Highway 34A (Catnip Reservoir is the location where I heard my first "Nevada whistlers" in June 1989).

Driving westbound along Highway 140, you'll cross into Oregon's Harney County then into Lake County. There continues to be NO power-lines whatsoever along Highway 140 into the Guano Valley (look for dirt road heading north toward "Beaty's Butte" - very scenic). It is not until you reach the eastern edge of the Warner Valley near Greaser Lake that you see distant power-lines near Adel, Oregon. This area is essentially treeless with large expanses of Sagebrush and Rabbitbrush along with the occasional Western Juniper tree. (S. P. McGreevy June 1989, August-Sept. 1993, July-August 1996). (refer to NV DOT Nevada Map Atlas Quadrangles 1-11, 1-12) Also excellent publications and maps may be obtained by writing to: Refuge Manager, Sheldon NWR, P. O. Box 111, Lakeview, Oregon 97630 or by telephoning: (541) 947-3315

Fortynine Summit/Vya, Nevada (Washoe County) and Long Valley areas: California Highway 299 becomes Nevada Highway 8A upon crossing the state-line into Nevada. Soon thereafter, the road begins the climb up to Fortynine summit and then eventually descends into the Long Valley and Vya, Nevada - a "town" really consisting of only a NVDOT highway maintenance station. This area (roughly centered on coordinates 41 deg. 60 min. north/120 deg. 00 min. west) is powerline free, except for the large Bonneville Power Administration pulsed-DC line running along the eastern side of the Long Valley about 5 miles to the east of Vya, NV. Locations near this area such as the

New Year Lake, Carter Reservoir, and the adjacent Modoc Co., California lands along the eastern side of Upper Alkali Lake to the north-east of Lake City, CA.

Another VLF-quiet area can be found near Massacre Lake (41 deg. 40 min. north/119 deg. 35 min. west) on the eastern edge of the Long Valley and also further eastward toward Table Butte. NV Highway 8A also heads north-east in the area toward the Sheldon P. National Antelope Refuge.

The northern end of the Long Valley from Calcutta Lake (41 deg. 51 min. north/ 119 deg. 40 min. west) and northward into Oregon is also VLF-quiet, as the large BPA (pulsed DC) powerlines head north-northwest, crossing into Oregon near the CA/NV/OR state lines I should add the fact that these huge, pulsed-DC powerlines run from the Bonneville Dam east of Portland, OR on the Columbia River southward to the Los Angeles Basin. (S. P. McGreevy 10/93) (refer to NV DOT Nevada Map Atlas Quadrangle 1-12)

Duck Lake Flat area: (GGC: 41 deg. 00 min. north/119 deg. 55 min. west) Heading north-westward away from Gerlach, NV, Highway 447 eventually reaches the Duck Lake Flat before crossing into California and toward Eagleville, CA. The entire area surrounding Duck Lake and Duck Flat (dry during drought periods) and the adjacent California areas to the west lack any powerlines. There are numerous well-maintained and more primitive roads branching away from Hwy. 447, the best being a road marked by a BLM sign pointing out "Ravendale 42 miles" and "Buckhorn Road" is a good area and has little or no vehicular traffic as well. (S. P. McGreevy 10/93, 7/96, 10/96).) (refer to NV DOT Nevada Map Atlas Quadrangles 2-12, 3-12 and the BLM Surprise Valley Interagency Recreation Guide - CA, OR, NV Tri-corner Region map)

Hot Springs/Nightengale exit off of I-80: Located 45 air miles to the north-east of Reno, 20 road miles north-east of Fernley, and just 4 miles from the I-80, I have found this site to be extremely convenient to access, a quiet place to lay-over for a few days before heading elsewhere, and easily accessed from the freeway except in wet, muddy road conditions as the road is essentially level and flat from the freeway exit. 2 moderately large Sierra Pacific powerlines run alongside the I-80 corridor and 2 more very large sets run nearly parallel the I-80 freeway but 9 miles distant to the north-west, this site lies between these sets of powerlines and is about 4.5 miles from each at the farthest distance. Weak background hum is present at times, but is faint enough on e-field vertical antennas not to aesthetically degrade VLF recordings much. Much of the time, background hissband and other natural radio sounds entirely cover the weak PLHR hum anyway.

Roads heading northward from this site cross under the two large sets of powerlines 9 miles north of I-80 and head into deeper, power-line free country further to the north - extremely scenic high-desert sites where NO hum is audible on the finest and most sensitive antenna systems, such as the Blue Wing Flats and Sage Valley (see below). (S. P. McGreevy, 7/89, 6/93, 7/93, 9/93, 4/96, 6/96).) (refer to NV DOT Nevada Map Atlas Quadrangle 5-11)

Blue Wing Flat/Sage Valley: The Blue Wing Flats/Granite Springs Valley, about 15 miles north of the Hot Springs/Nightengale VLF listening site (GGC: 40 deg. 15 min. north/118 deg. 50 min. west) and approx. 20 air-miles to the west-northwest of Lovelock. Easiest access to this area is via the "Toulon" exit off of I-80 to Ragged Top Road, which heads westward into the Trinity Range and past Ragged Top Mountain. then downward in elevation into the southernmost part of Granite Springs Valley. As you descend down into the sagebrush flats to the west, you will come nearly back to two large sets of power-lines. Look for a wide, well-traveled gravel road heading to the northwest and follow that road until you come to a large cattle corral (Blue Wing Cow Camp), then turn toward the north (right) and head into the Granite Springs Valley. This road runs up the eastern side of the Blue Wing Flat dry lake bed and has beautiful mountain vistas of the Trinity Range and Trinity Peak to the east and the dry lake bed to the west, with distant views of the spiky Sahwave Mountains to the west the Seven Troughs Range to the north. This road is very quiet but is more primitive and dusty. The further north you travel toward the Seven Troughs Range, the farther from those 2 large sets of powerlines and the fainter the PLHR hum will be until it is undetectable. This road eventually heads toward other roads which branch north-eastward into the Sage Valley. (S. P. McGreevy, 4/96) (refer to NV DOT Nevada Map Atlas Quadrangle 4-10)

Sage Valley: (GGC: 40 deg. 25 min. north/118 deg. 45 min. west) A beautiful and remote valley along the southern and eastern flanks of the Seven Troughs Range and bordered on the east/south-east by the Trinity Range. About as deep into power-line free and VLF-quiet territory as is possible. Access to this valley can be easiest from Lovelock via NV Highway 399 "Seven Troughs Road," a paved mining road leading over Trinity Pass and to the Eagle Pitcher Mine. 1/2 mile northwest of Trinity Pass, the paved road turns westward toward the mine, and a well-maintained dirt/gravel road continues down the mountains into the Sage Valley and toward the Seven Troughs Range - all VLF-quiet country and just 30 road miles from I-80. . (S. P. McGreevy, 4/96) (refer to NV DOT Nevada Map Atlas Quadrangle 4-10).

North-central Nevada:

Indian Creek (Humboldt NFS) Campsite/Paradise Valley: (GGC: 41 deg. 36 min. north/117 deg. 32 min. west) This is the first Nevada location where I first heard spectacular dawn chorus and a rare whistler storm on August 21, 1990. Drive north of Winnemucca and Interstate 80 via U.S. Highway 95 for 22 miles, then turn right (eastward) onto NV highway 290. 18 miles northward, you enter the near-ghost town of Paradise Valley and then head north toward the Santa Rosa Range which is also to your left (west). About 5 miles north of the hamlet of Paradise Valley, the road turns into a well-maintained (at least in the summer) road and begins to slowly begin to gain elevation, crossing Solid Silver Creek and Coleman Creek. Then just before you reach the bottom of the steeper grade, you reach Indian Creek and the two primitive campsites with one pit toilet. The nearest powerlines are approx. 3 miles to the east (serving the Martin

Creek Ranger Station and a radio repeater site at Hinkey Summit - elev. 7867 ft.) and as such, a tiny bit of Powerline "hum" is audible, but it hardly is a detriment to nice recordings and even nicer scenery. A great deal of obsidian and quartz rocks abound in the hillsides near Indian Creek. Gorgeous views of the surrounding Santa Rosa Range and majestic Santa Rosa Peak (elev. 9701 ft./2957 metres). *This is a no-fee camping site.* (S. P. McGreevy, 8/90) (refer to NV DOT Nevada Map Atlas Quadrangle 1-8).

Northeastern Nevada:

Angel Creek (Humboldt NFS) Campsite 7 miles south-west of Wells: (GGC: 41 deg. 01 min. north/115 deg. 05 min. west) This place is a gem! I first stayed overnight here in May 1984 on one of my first high desert tours with Sheldon Remington. It was not until June 1996, on my way northward toward Alberta and NWT Canada. It is where I also met Judy Langley, that summer's Camp Host and a person I enjoyed many late night talks about the natural world. I would return several times during the course of the summer and stay a total of two weeks there. Incredible views of Hole-in-the Mountain Peak and Castle Peak. and the rest of the Humboldt Mountains. Several of the 17 campsites are open and away from the thick Aspen groves - ideal for maximum sensitivity on e-field whip antennae. Nearest (small) power-lines are about 3 miles to the east and are weakly audible under quiet/low-static natural radio conditions. The campsites can fill up on weekends in July and August.

Take Wells West 1-80 exit and turn to the south for 1 block then turn (right) westward on very good paved road, driving upward in elevation. After about 9 miles, you will see a left-turn toward Angel Creek C.G - another well-paved road. Also there is another campground - Angel Lake - 4 miles straight up the main road past the Angel Creek turn-off. Angel Creek is 6800 ft./2073 metres in elevation and Angel Lake is 8400 feet/2560 metres elevation. 7.00 dollars per night - max. 4 people per vehicle and 2 vehicles per camp. This campsite is run by Humboldt Outfitters on contract from the USFS. Reservations recommended but not required (I never did reserve any campsite, but I stayed mostly during the week-days only, preferring more remote places over the week-ends). A nice layover spot. Campsite 1 is the Host campsites and 2, 3 and 4 are my favorites due to nice Aspen trees nearby and proximity to the Camp Host. (S. P. McGreevy, 5/84, summer 1996) (refer to NV DOT Nevada Map Atlas Quadrangle 2-3).

Goshute Valley/Shafter (25 miles north-west of Wendover, NV/UT): (GGC: 40 deg. 47 min. north/114 deg. 23 min. west) Gail West and I stayed 10 hours here to catch some sleep on 17 September 1993 on our way to Manitoba, Canada. We took the Shafter exit off of I-80 and headed south-west along the Nevada Northern Railway tracks on a wide, well-maintained dirt/gravel road. A small set of powerlines also follows the tracks and this unpaved road. About 8 miles later, we came to a junction and turned left toward the south-east on another unpaved road - this time without powerlines alongside it. The farther we headed down this road, the more the powerline hum became weaker. About 5

miles from the road and tracks, the power-line hum was not audible any longer, so we stayed to tape marvelous whistlers. A quiet place to spend a few days in solitude. Here's what I wrote for the CD: *While on our September 1993 "Big Trip" in my van and eventually to tour the Canadian provinces of Manitoba westward to British Columbia, Gail and I stopped in the eastern Nevada desert about 20 miles west of Wendover, Utah to catch several hours of sleep. Gail and I had driven most of the night across the Silver State after a brief stop the evening before at another favourite natural radio listening spot an hour's drive east of Reno, where we had heard and taped a marvelous variety whistlers, some very strong like the ones recorded by the INSPIRE listening groups in March 1992.*

Very sleepy and exhausted after 250 miles east-bound on Interstate 80, we took a remote exit off the freeway and headed south down a wide, unpaved road running alongside some railroad tracks. In the dark, we noticed there were powerlines running along the train tracks, but determined to stop in a spot where we could get some sleep and record whistlers (which I was sure must still be roaring), we kept on going until we saw another smooth dirt road branching away at right angles away from the tracks and pesky wires. Making occasional checks for powerline hum with my WR-3, we drove far enough from the wires--at least 5 miles--to where I couldn't hear any hum with my WR-3 whatsoever. By this time, we was just too tired (and now cold) to even set up the better WR-4B whistler receiver's antenna. I just had enough energy to get in the back of the van and tuck myself under the covers, falling quickly asleep.

Awaking a few hours later, I noticed it was somewhat light with a slate-gray sky. Time to set up the WR-4's 10-foot copper-pipe antenna and check out the whistler band. As predicted, there were wonderfully loud "growler" type whistlers roaring out of fairly light background sferic static. I hopped back into bed and switched on my cassette recorder, capturing these great whistlers onto a 90 minute tape. (S. P. McGreevy, 9/93) (refer to NV DOT Nevada Map Atlas Quadrangle 3-1).

US Hwy. 93 between Currie, NV and Wells, NV: I noticed that this valley lacked any AC powerlines running along the highway or anywhere visible. Numerous unpaved roads lead off east and west into open range lands. (S. McGreevy, September 1996) (refer to NV DOT Nevada Map Atlas Quadrangles 4-2 and 3-2)

Central-eastern Nevada:

Great Basin National Park/Wheeler Peak/Baker region: (GGC: 39 deg. 00 min. north/114 deg. 15 min. west) The crowning glory of this area is 13,063 ft./ 3,981 metre Wheeler Peak, a peak I have affectionately and reverently named "Mother Wheeler." This incredibly beautiful mountain in the Snake Range is home to the Great Basin's only alpine glacier. Quite near this glacier is a small stand of very old Bristle Cone Pines, and a couple of these very old gnarled trees are over 4,000 years old.

Three campsites (drive-in and fee) lie within the park's boundary. Lower Lehman, Upper Lehman, and Wheeler Peak, the latter being over 9,900 ft./3,017 metres in elevation. Lower Lehman campsite, at 7,200 feet elev. has the fewest trees but lies closest to a cluster of powerlines leading to the Visitor Center and a residential area to the east of the Visitor Center starting just outside the Park's eastern boundary and down to the town of Baker.

Upper Lehman campsite is higher up in the canyon formed by Lehman Creek and has denser tree cover. I used a 200 ft. long wire strung up 6 to 10 feet off of the ground and leading behind campsite #16 in mid-September 1996, and heard weak powerline hum in the back ground. The same situation for Wheeler Peak campground at site #25 using a longer (500 ft.) wire in mid-September 1994. Using a sensitive portable receiver such as the WR-3 or WR-3E and its whip antenna, no power-line hum was audible due to immunity of short e-field vertical/whip antennae to power-line hum induced into the ground.

All three drive-in campsites within the Great Basin National Park have extensive areas in which to hike within and these are also low-nil hum area using a WR-3E-type portable receiver.

If you feel up to it, hike the 10 mile round trip to the summit of Wheeler Peak (elevation 13,060 ft./3980 metres) starting from Wheeler Peak campground, and check out how well a [WR-3](#), [WR-3E](#) or similar whip antenna receiver performs - full sensitivity with hardly any antenna! Absolutely no power-line "hum" whatsoever, too.

Southern sections of the Park, such as roads leading up the Baker Creek and Snake Creek canyons, and also and several more to the south (accessible westward from Nevada Highway 487) are totally powerline-free and have incredible scenery. Gorgeous autumn colors abound at the higher elevations starting in mid-September. (S. P. McGreevy, 9/88, 9/94, 9/96) (refer to NV DOT Nevada Map Atlas Quadrangle 6-1 and 7-1).

Central Nevada:

Elkhorn Summit/Toiyabe National Forest (Lander County): (GGC: 39 deg. 15 min. north/117 deg. 25 min. west) This excellent and scenic spot is located approximately 25 miles southwest of Austin Nevada, off of NV Highway 722. A scenic drive from either direction, Highway 722, the old U.S. Route 50, winds its eastward way through the gorgeous Desatoya Mountains replete with beautiful rock outcroppings, and eventually descends into the Smith Creek Valley (see below), where it runs along the northern edge of dry Smith Creek Flats then on over Railroad Pass back to U.S. Highway 50 near Austin.

Elkhorn Road is a good, well-maintained dirt/gravel road linking the Reese River Valley to Highway 722, and it passes through the Shoshone Range reaching Elkhorn Pass at elevation 6870 ft./2094 meters. Small powerlines run along the Reese River (4 miles to the east of Elkhorn Summit), however, the PLHR hum from them diminishes rapidly as you head westward into the Shoshone Mountains. At the summit, a fairly primitive and rutted track (National Forest Road 299) heads south-westward for a mile or so, getting you away from the main Elkhorn Road, which sees about 5-20 vehicles per day pass over Elkhorn Summit. This is an area replete with Pinyon Pine and Juniper (the "Pygmy Forest"), offering shade from the hot sun and plenty of wood for a fire (check with Humboldt N.F. authorities for current information regarding open campfire regulations). (S. P. McGreevy, 9/88, 6/93, 7/93, 9/94) (refer to NV DOT Nevada Map Atlas Quadrangle 6-7).

Smith Creek Valley and Desatoya Mountains: Adjacent to the Elkhorn Summit area to the west, highway 722 takes you into the gorgeous, pinnacled heart of the Desatoya Mountains then down into the Smith Creek Valley where you can take roads southward into the Ione Valley or continue on toward Elkhorn Road or Austin. All AC powerline-free with some fascinating places to explore on both sides of the valley in the foothills of the Shoshone and Desatoya Mountains. (S. P. McGreevy, 9/88, 6/93, 7/93, 9/94) (refer to NV DOT Nevada Map Atlas Quadrangle 6-8).

Berlin-Ichthyosaur State Park/Ione Valley:

Northwest Territories

Mackenzie Highway/NWT Highway 1 along Hay River: The power-line free zone north of Indian Cabins, AB north of High Level, AB continues northward into the NWT as far as Louise Falls Park where a new set of powerlines were being installed early June 1996 toward Enterprise, NWT along NWT Highway 1. However, it's quite possible these lines are being strung as far south as the 60th Parallel Visitor Centre at the NWT/AB border by now).

[VIEW PHOTO](#)

The immense, northward-flowing Hay River. Photo by S. McGreevy

Louise Falls Territorial Park has gorgeous walking paths along the cliff-edge above the immense northward-flowing Hay River where one can walk for many kilometres to Alexandra Falls. These falls on the Hay River are some distance from the highway and far enough from any powerlines along that road that hum, if any now, might be low. At the Louise Falls Park, a beautiful new spiral staircase descending partially down the cliffs was installed spring 1996 and make for splendid views of the falls and of the huge river itself. A real feel of the remote north is here and in June there is fairly bright twilight all night and a red glow to the north during the deepest/middle part of the night at about 1:30

a.m. local time (MDT). This also causes a "twilight enhancement" for LF - HF radio signals propagating from southward and along the twilight/grayline path. Gorgeous birch and spruce trees abound. (S. P. McGreevy June 3-6 1996)

Ontario

Oregon

Alvord Desert: This is the place in south-eastern Oregon just to the east of the the eastern escarpment of Steens Mountain where I heard my first whistler in June 1989. It turns out that I was fairly close to powerlines back then, but the whistlers were very strong despite the fact that I using a extremely insensitive and crude receiver at the time. I returned in August 1993 with Gail West and with very sensitive and refined receiving equipment, and heard gorgeous Dawn Chorus on the morning of August 18, 1993. We had to drive far out onto the dry lake bed away from powerlines to get away from the hum emitting from AC lines following the wide dirt access road which links Denio Nevada with highway 95 to the north. The first 25 miles of the road north of Denio, NV is paved. That morning in 1993, I describe the following reception in my CD liner notes:

Sometime around the 17th of August, 1993, the Sun spewed forth a barrage of energetic atomic particles, some of which walloped Earth's magnetic field, causing it to deform and pulsate. The Polar Auroras became more brilliant as well, and were seen farther toward the Equator than usual. The skies dawned a brilliant blue in Oregon's Alvord Desert, and the remnant patches of winter snow upon the uppermost reaches of Steens Mountain shone a bright white. This tranquil scene belied the fact that Earth's magnetic field was undergoing utter chaos. Tremendous VLF radio energy was released by the "storming" magnetic field. Had they not been outshone by the daylight skies, Auroral Borealis would have danced in the skies overhead. These are the sounds of the Dawn Chorus, a relative of Auroral Chorus but heard into middle latitudes around sunrise. If you listen closely, you will hear the chorus and hiss gently rise and fall subtly every 10 seconds or so. This is the actual sound of Earth's magnetic field pulsating in and out. Because it was local summer, the radio energy static of lightning storms across North America was denser and more vigorous than if it were in winter. (S. McGreevy June 1989 and August 1993)

Hart Mountain National Antelope Refuge and adjacent Warner Lakes area: This area falls within one of the largest AC power-line free regions in Oregon, the southern end reaching south into Nevada's Sheldon National Antelope Refuge (see Nevada). Easiest access is from Highway 140 and north on the Plush-Adel road (paved) then continuing north on Hart Mtn Road (paved for a few miles north of Plush) then turns to good quality dirt/gravel and scenically winds its way up the western escarpment of Hart Mountain with views of the Warner Lakes and Mountains to the west. There is a nice drive-in campground surrounded by Aspen trees about 5 miles south of the refuge

headquarters via dirt road, and also a hot-spring enclosed by a white painted cinder-block enclosure. (S. McGreevy August 1993)

John Day River Gorge If you haven't bothered to travel in the central-northern interior of Oregon, you're in for a surprise. One of the best surprises is the beautiful John Day River gorge running for 100 miles from the Columbia River southward. Many areas along this river are power-line-free, especially the canyon between Dayville south to near Paulina. --Numerous roads lead off into the surrounding BLM and National Forest Lands. The Gorge itself is full of fascinating geological sights and Utah-like canyon terrain (though smaller in scale).

[VIEW PHOTO](#)

A hay farm not far from the John Day River Gorge near Twickenham (about 30 miles south of Condon)

Quebec

Saskatchewan

Highway 106 to the north east of Prince Albert. What a cool Highway--it goes deep into the Boreal Forest. In late-June 2001, I embarked upon another trip into the sub-auroral zone of Canada, desiring to be in drier weather than experienced in Alberta in the summertime and early autumn. Looking at a map, I saw a highway (106) leading northward from the town of Smeaton, which is a good place to stock-up on groceries, though for the first 100 km/60 miles of this highway northward and northeastward, there are powerlines, finally TERMINATING at a microwave site. From then on, you're entering prime VLF-quiet country. I made it up nearly to the intersection of dirt highway 165 (past Big Spruce Lake), and recorded some nice natural radio, but it certainly was not quite as impressive of natural radio phenomena as in Alberta in August 2000. Quieter geo-magnetic conditions prevailed on that Far North trip. (It IS possible that the powerlines are being extended along the Highway 106 toward Flin Flon, Manitoba (like they were doing along the Hay River/MacKenzie Highway in northern Alberta and southern NWT, Canada in June '96), so it would be best to take side roads away from 106 and be at least a few miles distant - many forest roads abound, and you could try highway 165 northwestward into the La Ronge area.

Utah

Canyonlands National Park: Breathtaking scenery, and away from the Visitor Center the rest of the Park is ENTIRELY FREE of AC powerlines and there is virtually no AC

hum at any of the drive-in (except for possible RV generators nearby) campgrounds and certainly no hum in the hike-in campsites.

Be aware that the worse lightning months are July, August and September - usually in the afternoon, so static may be fierce. Mornings usually are low-static times even in lightning season.

Interstate 70 Corridor: There are several long stretches of I-70 lacking any close-by AC power-lines. The eastern most 50 miles of I-70 in Utah between the Colorado state-line to 1 mile east of the Highway 191 exit to Moab don't have any powerlines near the freeway and a quick check with my WR-3E reveled no audible AC hum. Within or near this stretch of freeway lie the Sego canyon Petroglyphs and the hamlet of Thompson.

The other stretch of I-70 is the section crossing the San Rafael Swell south of Price, UT. Beautiful red-rock cliffs and escarpments visible along this very scenic stretch of freeway. (S. McGreevy, Sept. 1996)

Lake Powell: I understand via Frank Cathell that away from the Glen Canyon Dam and to the east for 50 miles there are no powerlines near this vast reservoir and within the Glen canyon national Recreation Area. Mostly accessible only via boat, including popular houseboats. (Frank Cathell, 1995)

Highway 21 between Milford and Garrison: Numerous long stretches of this road are away from close-by AC lines and a multitude of side dirt roads branch right and left off of this highway to be explored. (S. McGreevy, Sept. 1988 and Sept. 1996)

Virginia

Perry Crabill, W3HQP, from Winchester, Virginia, has had good luck listening for whistlers and other natural radio phenomena along Skyline Drive, the scenic highway that traverses Shenandoah National Park in Virginia, about 60 miles west of Washington, DC. His equipment is a [WR-3](#) using the 33-inch telescoping whip antenna supplied with the receiver.

He writes: The park is long and narrow, and straddles the Blue Ridge Mountains for nearly 75 miles. It varies in width from one to thirteen miles. Skyline Drive is 105 miles long, and runs more or less north and south. It is very close to the top of the mountain for much of its route, and has a number of roadside parking areas called overlooks for viewing the scenery.

Depending on the particular section of the Drive, overlooks may be on the east side of the mountain, with a view of the Virginia Piedmont, or on the west side, looking out over the Shenandoah Valley.

The Park and Drive are divided into three sections; the Northern Section begins just south of Front Royal, and is accessed from US Route 340. The Drive in this section extends south about 32 miles to its crossing by US Route 211, which connects Sperryville on the east to Luray on the west.

The Drive's Central Section extends south about 34 miles from US Route 11 to US Route 33, which runs from Stanardsville on the east to Elkton on the west. The greatest elevation of the Drive is 3,680 feet at mile 41.7 in this section.

The Southern Section begins goes just short of 40 miles from US Route 33 and goes south to I-64, which goes between Charlottesville on the east to Waynesboro on the west. The Drive connects to the Blue Ridge Parkway, a similar scenic highway, which continues into North Carolina and Tennessee.

Not all of the overlooks are free from power hum pickup. Even those with some hum allow reception of tweeks and the stronger whistlers with the WR-3. Perry Crabill has checked the Northern and Central Sections, and has found one or two very low noise overlooks on the east side in the Central Section. However, information about specific locations will have to be made available in an update to these notes.

Food and lodging are available at several places within the Park, either along the Drive or via an access road. A limited number of campsites are provided in several areas. The Appalachian Trail passes through the Park, and many side trails exist throughout.

Shenandoah National Park is an adjunct of the US National Park Service, and admission fees are charged. Several types of passes are available; the costs of most of these will be substantially upgraded after March 1, 1997. (Submitted by Perry Crabill, W3HQX, 30 January 1997).

Washington

From: Tom Bowns

To: Steve McGreevy

Steve -

For your site list, I submit these two spots as "acceptably quiet, easy access":

1) Redmond, Washington -- Marymoor Park Interpretive Trail. This one is about two or three miles from any power lines, and has a level of 60 Hz hum that is fairly low; the sounds of sferics and whistlers is much more intense. To get there, take SR520 toward Redmond, and get off at the

Redmond-Fall City Road exit. Turn right on to Redmon-Fall City Road, turn right on the next street, and follow the street into Marymoor Park. Turn left into the parking lot marked "interpretive trail". The trail leads from the parking lot to the lake.

2) Woodinville, Washington -- Samammish trail. This trail is several miles long, and it winds North far enough to be about three miles from the nearest power lines. The hum level is noticeable but easy to disregard; sferics and whistlers are easily heard. The trail shared by walkers and bicyclists, so you have to watch out, especially during prime listening time (darkness). To get there, take SR520 toward Redmond, and get off at West Lake Samammish Parkway. Take a left, and follow the street up until it connects with Willows Road. Follow Willows road North to get to N.E. 124th street, and take a right. Follow N.E. 124th St until it crosses a slough, and park on the right in the lot there. The trail is just down the steps past the lot, and follows the Samammish slough.

I intend to go on some sojourns later in the Spring far into the mountain pass areas off I-90 and find accesible peaks away from the utility corridors, and I will report back with any good spots then.

-Tom Bowns

Wyoming

Shirly BasinAN alternate highway leads toward the north-west off of Wyoming 487, north of Medicine Bow. Farm and Forest roads lead off to the west.

Common-sense Precautions: Traveling in the back-country and on primitive roads far from services and vehicle repair facilities entail taking some precautions before embarking. Be sure your vehicle is in good operating condition and has new air filters and a recent oil change. Be sure tires are in good shape and bring 2 spares if possible, along with an extra car battery or 5 - 8 watt solar panel array (optional advice of course, but a way to NOT stay longer than desired, as has happened to me until the solar-panel recharged my van's battery...)

Leave gates as you find them: open if open, and closed if closed, unless you really are sure the gate was left in its current state accidentally or irresponsibly. A fair amount of BLM (Public) land is leased to ranches. Respect ranchers in the utmost, for they must make their living from the land and already suffer encroachment from careless urbanite/small-town recreationalists and excessive governmental regulations--they also are generally happy to meet visitors sincerely interested in their endeavors and can point out other places to visit in their area.. Treat their land and Public lands as though they belonged to your best friend.

Despite what the totally irresponsible SUV and 4 X 4 Pickup-truck vehicle ads on television (which I hardly watch anymore with very few exceptions) or in magazine ads (including National Geographic!) *imply*, PLEASE DON'T "make your own road" in the wilderness and add yet another example of needless vehicular damage to the the landscape. Tread lightly and drive gently, and the mostly untrammelled natural beauty will remain for our children, and theirs hopefully. If the land can survive the current North American vehicular land-slaughter by 2025, we'll be most fortunate!

National Parks at certain times of the year might be considerably more crowded but you can still walk or drive into the hinterlands to find plenty of quietude, and there won't be the ravages of off-road vehicle mayhem as is frequently found outside of the U.S. National Park boundaries, particularly in the California desert (BLM lands specifically).

Finally, **When lightning is within 10 miles of you, please don't listen to VLF and take appropriate lightning precautions!!! Most of the time you're going to hear the best whistlers from lightning FAR away - even 1000's of miles distant. And, the static is going to be excessively loud for any enjoyment of other VLF radio phenomena.**

Good VLF monitoring sites in the British Isles and Europe:

England

Greater London - Chelsea/Wandsworth: Battersea Park. Surprisingly, during a stay in Chelsea, I discovered that Battersea Park had surprisingly low hum heard on my WR-3E and 85-cm/33-inch telescoping whip antenna. Walking around this beautiful park, I found the most hum free place was halfway between the Peace Pagoda (beautiful statue of Buddha) and the soccer playing fields to the south. The residential areas surrounding the park have below-ground AC power-lines aiding in the lack of AC hum e-field radiation. The park closes at dark but I caught many nice evening whistlers before it became fully dark. The weak background hum does vary in intensity somewhat due to the electric train tracks on the park's southern edge near the old Battersea Power Station serving Victoria Station. I would have never believed that one could enjoy VLF listening in the heart of a large city, but in London, it's quite possible! Other large Greater London parks probably are also good places to check out. (S. McGreevy, May 1996).

Ireland

County Clare: Dromoland Castle Golf Course links and surrounding woodland and meadows: During a stay at the Hotel Clare a bit south of Ennis, I found many of these

areas to be quite low in 50Hz and harmonic AC-line hum. Gorgeous scenery and an old-World feel. Surely fairies must live in the surrounding woods--McGreevy, May 1992. I mention this in [The VLF STORY](#)

[VIEW PHOTO](#)

Dromoland Castle Hotel, Co. Clare, 24 May 1992 - S. McGreevy

County Donegal: Narin Strand to east of Portnoo/Narin. Walk up this pretty stretch of beach eastward and you'll get away from the small AC mains powerlines in the hamlet. A golf course lies to the south of Narin strand borders the beach and sand dunes and has very little background AC hum. Nice views of Iniskeel (you can walk over a sand bar at low tide to this island with some 10th C. ruins).-McGreevy, May 4-6, 1996.

County Down: Hillsborough Forest and Fort: Gorgeous walking paths around a small lake. This forest is surrounded by a wall and looks impressive from the air as well. Surprisingly low hum with the fort's interior and front lawn too--minutes walk from town! S. McGreevy, May 1-3, 7-9, 1996

Sweden

LISTENING SITES

Submitted by Göte Flodqvist, Stockholm, Sweden

When it comes to quiet listening places in Sweden, they are, generally speaking, available in the western mountainridges, by feet or by car if dirt roads permits.

If I should be specific I have used a few places:

Loevaanger (a small village, 64 deg, 20' N):

A few km down the road to the coast by a dirt track. Very low level of hum. Open landscape. Fast and easy access from the village and main (coastal) highway (E4) to northern Sweden.

Jukkasjaervi (a small village, 68 deg N, 20 km (32 miles) east of Kiruna):

A dirt road passing by a training stadium for moose(elk?)shooting. Entering a clear cut area after a few km. Excellent listening conditions. There are several useful dirt tracks in this area.

If you are prepared to trek in these mountains, there are several national parks to walk in. Sylarna, Sarek, Kebnekajse, just to mention a few. In these areas there are lodges and huts to sleep in, if you do not prefer to bring your own tent. All of them are excellent, silent places, except at a few spots near the park-entrances where a bigger lodge is placed, connected to the power grid thus creating a local noise.

Around Stockholm, the capital of Sweden, within a radius of say 50 km (80 miles), it is a main problem to find a true silent place. Acceptable

sites are near the Baltic Sea, accessible via the main roads. Or boat. Or canoe.

We are now two people in Stockholm, who use the same basic equipment. A fishingrod, a FET-buffer, a freestyle-taperecorder. We listen, more or less on an everyday basis, to the sounds of the sky! There is a prospect for a third person to join the VLF-IE listening party.

Best Regards

Göte

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Your reports of locations you've found are very welcome and desired for all VLF enthusiasts and ground-based researchers. Full credit will be given here. Please e-mail me at the electronic address below, or send your valued information via postal mail to the address above.

To [**Index of States, Provinces and Countries**](#)

Natural VLF Radio: It is the music---the voice of Earth's electromagnetic realm. It is never the same day to day...



There is nothing more important than getting out into the countryside or wilderness--and just take a long look at the beauty of Earth and the sky. Nature's beauty is a key to happiness waiting for us all, if we care.

Visits since Mayday 2007: 
